

ESH Coordinator's Meeting

Industrial Hygiene Baseline Exposure Monitoring Program

R. Selvey, SHSD IH Group
May 24, 2006

10CFR851 and DOE Order 440.1a requires:

“Assess worker exposure to chemical, physical, biological, or ergonomic hazards through appropriate workplace monitoring (including personal, area, wipe, and bulk sampling); biological monitoring; and observation.”

10CFR851 and DOE Order 440.1a requires:

“Have a comprehensive industrial hygiene program that includes initial and or baseline surveys and periodic resurveys and/or exposure monitoring as appropriate of all work areas or operations to identify and evaluate potential worker health risks.”

Addressing the Problem to date:

- The need: Sampling to complete the **baseline assessments** is **2300** events.
- Status: BNL currently has **less than 50 assessments** completed in 2006.

Actions to Address the condition:

- SHSD Industrial Hygiene Group reorganized to maximize their personnel resources to conduct field assessments and exposure monitoring.
- 4.5 SHSD Industrial Hygiene SMEs were reallocated as *Safety & Health Representatives* and deployed to the line organizations. (Total deployed now = 5.5 FTE)
 - 1 additional IH Group person is dedicated (full time) and 1 part time to sampling
 - 2 Summer Students will start in June

Actions to Address the condition:

Over 40 additional personnel from RCD, EWMSD, ERD, and CAD have been trained to perform in a part-time role in exposure monitoring and hazard assessments as an addition to their current roles.

Criteria for Qualification of IH Service Providers was developed. Training is now:

- Noise: Complete RCD, CAD and SHSD staff
- Chemicals: Partial SHSD staff, still underway for others
- Non-Ionizing Radiation: to be done

Issues with the current resources:

- **Estimated Completion of Baseline:**
With SHSD, RCD, EWMSD, and CAD, we will reach a rate of **250 events per year** in 2006.
- So the estimated period to complete baseline IH monitoring has been calculated at **10 years.** (2016)

Proposed ADS

- 5 x: *P1-P3 technician/professionals* term positions for first two years to complete baseline exposure monitoring in 2 years.
- 3 x: P7-P9 professionals to fill:
 - 2 vacant IH Program SME gaps
 - 1 S&H Representative for the Life Sciences Directorate & ESH&Q.
- Lab Analysis cost \$50K per year

Don't shoot the messenger

- Next....

ADS Status

Not to be submitted until existing resources are further explored.

- Commitments from SHSD, RCD, EWMSD, and line organization must be obtained to complete some portion of the baseline survey. (Define their contribution)
- Examine re-allocation of existing personnel (within ESH&Q) before hiring new term or permanent employees.
- Examine the use of under-utilized scientific staff as samplers.
- Examine ESH Coordinators & other line organizations ESH support staff as samplers.

Defining the need and resources

- *IH-Needs Calculator: ball park estimate*
- *IH Monitoring Strategy: the “how to” manual, prepared as a SHSD SOP*
- ***IH-Scheduler*** (Hazard Inventory, Ranking, Schedule, & Personnel Resource)

IH Scheduler: Hazard Inventory, Ranking, Schedule, Resources for Sampling

Org cod	Building	Location	Source Title	Hazard	Sample Type	Expos	Last San	Next Sample Da
DO	460	Shredder		Noise	Area	D	None	2006:June
PE	185		Paper Shredder	Noise	Area survey event	d	3/06	2006:3rd quarter
OM	490	Placeholder for actual locat	Paper Shredder	Noise	Area survey event		None	2006:4th quarter
EENS	490A	Lab 12-107	Experiment	Carcinogen	Area Survey Event	C	None	6/2006
EENS	815	Lab C-2	Experiment	Organic solvent - THF	Area Survey Event	C	None	6/2006
EENS	815	Lab C-1	Experiment	Organic solvent	Area Survey Event	C	None	6/2006
EENS	815	Lab C-2	Experiment	Organic solvent - Ethyl E	Area Survey Event	C	None	5/2006
EENS	815	Lab C-3	Experiment	Organic solvent	Area Survey Event	C	None	6/2006
EENS	815	Lab C-4	Experiment	Organic solvent	Area Survey Event	C	None	6/2006
EENS	815	Lab C-5	Experiment	Organic solvent	Area Survey Event	C	None	7/2006
EENS	815	Lab C-6	Experiment	Organic solvent	Area Survey Event	C	None	7/2006
EENS	815	Lab C-8	Experiment	Organic solvent	Area Survey Event	C	None	8/2006
EENS	830	High Bay	Experiment - SPSS	Chemical-mercury	personnel sampling event	B	2/8/06	2/2007
EENS	830	Lab 4	Experiment - SPSS	Chemical-mercury	personnel sampling event	D	2/6/06	2/2007
EENS	815	Lab E-6	Experiment	Organic solvent	Personnel sampling event	C	None	7/2006
EENS	815	Exterior	A/C unit	Noise	Personnel sampling event	C	4/26/05	4/2006
EENS	526	Lab C-117	Hoods	Noise	Area Survey Event	C	7/27/05	7/2007
EENS	815	Lab C-3	Hoods	Noise	Area Survey Event	C	7/27/05	7/2007
EENS	815	Lab C-6	Hoods	Noise	Area Survey Event	C	7/27/05	7/2007
EENS	815	Lab E-5	Hoods	Noise	Area Survey Event	C	9/13/05	7/2007
EENS	815	Exterior Courtyard	Exterior A/C unit	Noise	Area Survey Event	C	9/13/05	7/2007
EENS	526	Office	Exterior A/C unit	Noise	personnel sampling event	D	5/02/05	6/2006
EENS	830	Lab 4	Experiment - SPSS	Chemical-mercury	personnel sampling event	D	2/7/06	2/2007
EENS	830	Lab 4	Experiment - SPSS	Chemical-mercury	personnel sampling event	D	2/3/06	2/2007
EENS	815	Lab E-5	Experiment	Organic solvent	Area Survey Event	C	None	7/2006
EENS	490A	Lab 12-107	Experiment	Organic solvent	Personnel sampling event	C	None	6/2006
EENS	830	Lab 4	Experiment	Organic solvent	Area Survey Event	C	None	8/2006
EENS	830	Lab 2	Experiment	Organic solvent	Area Survey Event	C	None	8/2006
EENS	526	Lab 209	Experiment	Organic solvent	Area Survey Event	C	None	12/2006

IH Scheduler: Hazard Inventory, Ranking, Schedule, Resources for Sampling

	Org cod	Building	Location	Source Title	Hazard
	DO	460	Shredder		Noise
	PE	185		Paper Shredder	Noise
	OM	490	Placeholder for actual location	Paper Shredder	Noise
	EENS	490A	Lab 12-107	Experiment	Carcinogen
	EENS	815	Lab C-2	Experiment	Organic solvent - THF
	EENS	815	Lab C-1	Experiment	Organic solvent

Sample Type	Expos	Last San	Next Sample Date	Sampler	Time
Area	D	None	2006:June		8
Area survey event	d	3/06	2006:3rd quarter	N. Bernh	8
Area survey event		None	2006:4th quarter	N. Bernh	8
Area Survey Event	C	None	6/2006	J. Peters	16
Area Survey Event	C	None	6/2006	J. Peters	16
Area Survey Event	C	None	6/2006	J. Peters	16
Area Survey Event	C	None	6/2006	J. Peters	16

Call for help

- Adding new employees to the overhead is very unlikely at this stage. Sr. Management does not support it without full justification that existing BSA employees can NOT fill the need.
- Charge-back will be used if needed.
- Line organizations can contribute “personnel time”.

You can do sampling, SHSD will train and qualify you.

Multiple, limited scope qualifications are available

BNL Industrial Hygiene Program
Unified Site-wide Training & Qualification Matrix
Effective Date: 05/15/06



Course#	Title	Frequency	IH SOP#	OHSAS 18001 SHSD JRA#
TQ-Backsafe	Web CBT: Back Safety	AS BTMS SPECIFIED	--	--
HP-BHP-92200	Computer Workstation Hazard Assessor	3 yr	--	II-JRA-05
HP-BHP-92300	Lifting/Repetitive Motion Hazard Assessor	3 yr	--	II-JRA-05
JTA HP-93	Laser Inspector and Reviewer (SHSD only)			
TQ-Laser	Web CBT: Laser Safety	AS BTMS SPECIFIED	--	--
HP-OSH-105A	Web CBT: Basic Electric Safety	AS BTMS SPECIFIED	--	--
OM-MEDGURV-LASER	Medical Surveillance- Laser	AS BTMS SPECIFIED	--	--
HP-BHP-93200	Laser Inspections	3 yr	--	II-JRA-10
HP-BHP-93175	Laser Safety Officer	3 yr	--	II-JRA-10
HP-BHP-94500	International Light IL-1400 Radiometer/Photometer	3 yr	94500	II-JRA-05
JTA HP-98A	Noise Exposure Evaluator, Monitoring Planner, Complex Exposure Monitoring & Design Reviewer			
TQ-Noise	Web CBT: Noise & Hearing Conservation	AS BTMS SPECIFIED	--	--
OM-MEDGURV-Noise	High Noise Area/Ops Exp-Train & Med Surv Required	AS BTMS SPECIFIED	-	-
HP-BHP-95000	Field Monitoring Skills Application	1 yr	---	II-JRA-05
HP-BHP-95150	Control of Noise	3 yr	95150	II-JRA-05
HP-BHP-95175	Investigation/Evaluation of STS	3 yr	95175	II-JRA-05
HP-BHP-95200	Area Surveys	3 yr	95200	II-JRA-05
HP-BHP-95250	Personnel Dosimetry	3 yr	95250	II-JRA-05
HP-BHP-95550	Quest Q-300 Dosimeter Operation	3 yr	95550	II-JRA-05
HP-BHP-95700	Quest Noise Pro Dosimeter Operation	3 yr	95700	II-JRA-05
One or more of the following:				
HP-BHP-95401	GenRad 1982- OBA Operation	3 yr	95401	II-JRA-05
HP-BHP-95500	B&K 2236 Operation	3 yr	95500	II-JRA-05
HP-BHP-95515	Exttech 407750 OBA Operation	3 yr	95515	II-JRA-05
HP-BHP-95520	Case/la CEL-254 Operation	3 yr	95520	II-JRA-05
HP-BHP-95530	Quest 2100 Operation	3 yr	95530	II-JRA-05
JTA HP-98B	Noise Exposure Monitoring Technician			

Path forward

Qualification for CHEMICAL SAMPLING

Open session on

- **THURSDAY MAY 25**
- **3:00 PM TO 4:45 PM**
- **Brookhaven Center- South Room**

